

EARTH SCIENCE  
APPLIED SCIENCES

# The Earth Science Applications Guidebook

Leveraging decades of  
experience and best practice

*Sterling Riber, 19 October 2021*

NASA BIODIVERSITY & ECOLOGICAL FORECASTING MEETING 2021



# Web-based product to synthesize and share best practices in developing EO applications



- Audiences: emerging applied scientists, basic research scientists considering applied work, PIs new to NASA
- Format: mixes interactive, e-learning approaches
- Sources: desk review, survey, 30 interviews and 2 design consultations – so far!
- Content: diverse representation of ASP program areas, geographies and PIs
- Timing: launch in late November



# Main sections of the guidebook



EARTH SCIENCE  
APPLIED SCIENCES

## EARTH SCIENCE APPLICATIONS GUIDEBOOK

This guidebook explores the many ways that people use satellite data to make decisions about water, land, agriculture, fisheries, disaster response, health and the environment. It offers insights, lessons and recommendations – all from the point of view of individuals who believe that science contributes to a better world.

Select a topic and begin exploring...

### APPLIED EARTH SCIENCE: WHAT IT TAKES



### USING EARTH SCIENCE TO TACKLE CRITICAL CHALLENGES



### DELIVERING SUSTAINABLE APPLICATIONS

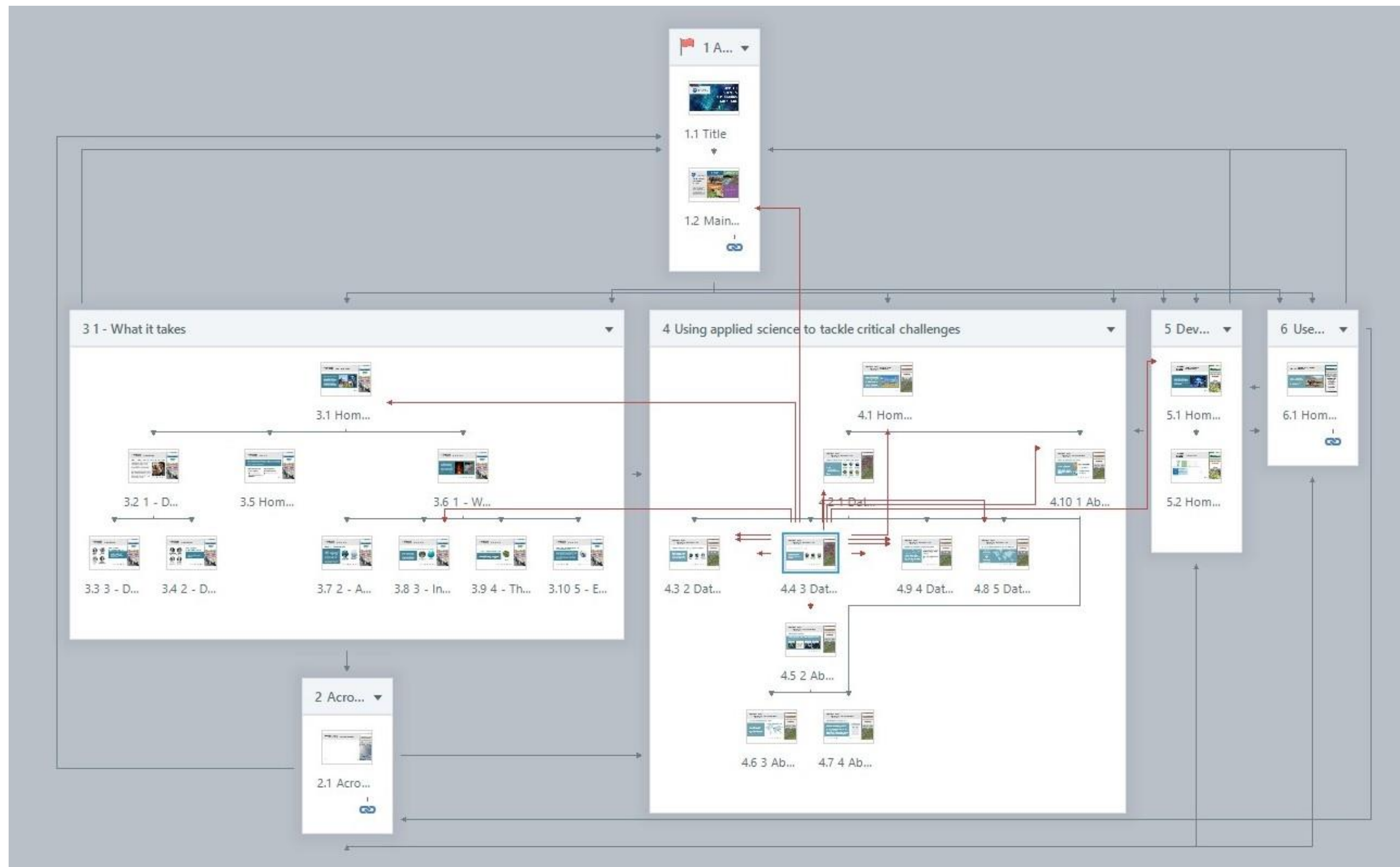


### USE CASES





# Creating engaging content through interactivity



The guidebook is developed using an e-learning authoring tool called Articulate Storyline. Some benefits to this approach include:

- Ability for users to choose their own path
- Built-in interactivities (e.g., rollovers, quizzes, soundbites)
- Graphics and animation
- Responsive full screen display
- Fast loading HTML5 output

# Vision: guidebook catalyzes greater engagement in Applied Sciences

APPLIED SCIENCE: WHAT IT TAKES

DEFINITIONS OF SUCCESS

Becky Chaplin Kramer  
Lead Scientist, Natural Capital Project, Stanford University and University of Minnesota

Faisal Hossain  
Professor, University of Washington Department of Civil and Environmental Engineering

James Nelson  
Professor of Civil and Environmental Engineering, Brigham Young University

Blake Schaeffer  
Research Scientist, U.S. Environmental Protection Agency Office of Research and Development

*Success is answering a question that somebody actually wants the answer to. That's often an iterative process because what you start out off with as what people think they might want to know, may not wind up being what is going to be most helpful in the end...So, success is the journey. And it's getting there together. And finding something in the end that can change minds or change the way that we do things.*

Click to listen

PREV 1 2 3 NEXT

HOME | GLOSSARY | ACRONYMS

APPLIED SCIENCE: WHAT IT TAKES

Definitions of success

Success factors

Why applied science?

USING APPLIED SCIENCE TO TACKLE CRITICAL CHALLENGES

DELIVERING SUSTAINABLE APPLICATIONS

USE CASES

The plan is for the guidebook to be a focal point for learning, sharing and exchange on applied sciences applications. Possible activities may include:

- New cases studies and fresh content
- Annual lessons learned symposium
- Applied sciences community interaction



# How you can get involved



- Share your suggestions, ideas and experience
- Volunteer for BETA testing (planned for November)

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